Claims:

1. (Previously Presented) One or more computer readable storage media having stored thereon a plurality of instructions that implement a schema, the schema comprising:

at least one definition of entities to be implemented in a distributed-computing system; and

at least one relationship that identifies links between the entities to be implemented in the distributed-computing system such that the schema is used by a development tool and a deployment tool to implement the definition and the relationship.

2. (Previously Presented) The one or more computer readable storage media of claim 1 wherein the schema is further used by a management tool.

3. (Previously Presented) The one or more computer readable storage media of claim 1 wherein the schema allows a user of the development tool to identify desired operational intentions.

4. (Previously Presented) The one or more computer readable storage media of claim 1 wherein the at least one definition includes a resource definition, a system definition and an endpoint definition.

5. (Previously Presented) The one or more computer readable storage media of claim 1 wherein the at least one definition includes a resource definition that specifies an application runtime behavior associated with a system.

6. (Previously Presented) The one or more computer readable storage media of claim 1 wherein the at least one definition includes a system definition that describes a portion of an application deployed in the distributed-computing system.

7. (Previously Presented) The one or more computer readable storage media of claim 1 wherein the at least one definition includes an endpoint definition that describes communication information associated with a system.

8. (Previously Presented) The one or more computer readable storage media of claim 1 wherein the at least one relationship includes a containment relationship, a delegation relationship, a connections relationship, a hosting relationship and a reference relationship.

9. (Previously Presented) The one or more computer readable storage media of claim 1 wherein the at least one relationship includes a containment relationship that describes the ability of a particular definition to contain members of other definitions.

10. (Previously Presented) The one or more computer readable storage media of claim 1 wherein the at least one relationship includes a delegation relationship that exposes members contained in a particular definition.

11. (Previously Presented) The one or more computer readable storage media of claim 1 wherein the at least one relationship includes a connections relationship that identifies available communication interactions between a plurality of definitions.

12. (Previously Presented) The one or more computer readable storage media of claim 1 wherein the at least one relationship includes a hosting relationship that describes dependencies between a plurality of definitions.

13. (Previously Presented) The one or more computer readable storage media of claim 1 wherein the at least one relationship includes a reference relationship that identifies ordering relationships between a plurality of definitions.

14. (Previously Presented) The one or more computer readable storage media of claim 1 further comprising an abstract portion associated with templates for distributed-applications and a concrete portion associated with particular implementations of distributed-applications .

15. (Previously Presented) The one or more computer readable storage media of claim 1 further comprising a plurality of relationships, wherein the schema provides for the communication of settings across the plurality of relationships.

16. (Previously Presented) The one or more computer readable storage media of claim 1 further comprising a plurality of relationships, wherein the schema provides for the communication of application runtime behavioral information across the plurality of relationships.

17. (Previously Presented) One or more computer readable storage media having stored thereon a plurality of instructions that implement a schema, the schema comprising:

at least one system definition of a portion of an application associated with a distributed-computing system;

at least one resource definition that specifies application runtime behavior associated with the system; and

at least one endpoint definition of communication information associated with the system.

18. (Previously Presented) One or more computer readable storage media as recited in claim 17 wherein the schema further includes at least one relationship that identifies links between entities in the distributed-computing system.

19. (Previously Presented) One or more computer readable storage media as recited in claim 17 wherein the schema further includes a containment relationship that describes the ability of a particular definition to contain members of other definitions.

20. (Previously Presented) One or more computer readable storage media as recited in claim 17 wherein the schema further includes a communication relationship that identifies available communication interactions between a plurality of definitions.

21. (Previously Presented) One or more computer readable storage media as recited in claim 17 wherein the schema is used by any of: a development tool, a deployment tool, or a management tool.

22. (Previously Presented) One or more computer readable storage media as recited in claim 17 wherein the schema models a target system on which the application will be installed.

23. (Currently Amended) One or more computer readable storage media having stored thereon a plurality of instructions that when executed by a computer implement a design tool, the design tool comprising:

a system definition model to enable defining ~~definining~~ abstractly the specifications of distributed-computing systems and distributed-applications; and

a schema to dictate how functional operations within the system definition model are to be specified.

24. (Previously Presented) The design tool of claim 23 wherein the design tool is a distributed-application development tool.

25. (Previously Presented) The design tool of claim 23 wherein the design tool is a distributed-application deployment tool.

26. (Previously Presented) The design tool of claim 23 wherein the design tool is a distributed-application management tool.

27. (Previously Presented) The design tool of claim 23 wherein the distributed-applications are scale-invariant.

28. (Currently Amended) A data structure stored on one or more computer-readable storage media that is instantiated in accordance with a schema, the schema being accessible by a plurality of tools, the plurality of tools comprising:

an application development tool, whereby the application development tool defines a system comprised of communicating software and hardware components during a design phase;

an application deployment tool for facilitating deployments to a plurality of host environments and a plurality of scales, whereby the application deployment tool facilitates utilizing a definition of the system developed by the application development tool to perform operations comprising:

deploying the system;

allocating software and hardware; and

configuring the software and hardware; and

an application management tool, the application management tool facilitating new management tools to perform operations comprising:

driving resource allocation;

managing configuration;

upgrading; and

automating processing;

the schema comprising:

at least one system definition of a component of a scale-invariant distributed-application ;

at least one resource definition of [[a]] an application runtime behavior associated with the component;

at least one endpoint definition of communication information associated with the component;

at least one containment relationship specifying ~~specifiing~~ an ability of a particular definition to contain members of other definitions;

at least one delegation relationship that exposes members contained in the particular definition;

at least one communication relationship that specifies available communication interactions between a plurality of definitions;

at least one hosting relationship that specifies dependencies between the plurality of definitions; and

at least one reference relationship that specifies ordering relationships between the plurality of definitions.

29. – 32. (Canceled)

33. (Previously Presented) A method comprising:

creating a data structure in accordance with a schema, the schema defining at least one definition of entities in a distributed-computing system, at least one containment relationship specifying the ability of a particular definition to contain members of other definitions, at least one delegation relationship that exposes members contained in the

particular definition, at least one communication relationship that specifies available communication interactions between a plurality of definitions, at least one hosting relationship that specifies dependencies between the plurality of definitions, at least one reference relationship that specifes ordering relationships between the plurality of definitions; and

populating the data structure.

34. (Previously Presented) One or more computer readable storage media having stored thereon a plurality of instructions that, when executed by a processor, cause the processor to perform a method, the method comprising:

loading a definition of entities in a distributed-computing system; and

loading a relationship that specifies communication links between the entities in the distributed-computing system, such that the definition and the relationship are used to develop and deploy the distributed-computing system.

35. (Previously Presented) The computer readable storage media of claim 34 wherein the definition and the relationship are further used during management of the distributed-computing system.

36. (Previously Presented) The computer readable storage media of claim 34 wherein the definition includes a resource definition, a system definition and an endpoint definition.

37. (Previously Presented) The computer readable storage media of claim 34 wherein the relationship includes a containment relationship, a delegation relationship, a communication relationship, a hosting relationship and a reference relationship.

38. (Previously Presented) A method comprising:

loading a definition of entities in a distributed-computing system; and

loading a relationship that specifies communication links between the entities in the distributed-computing system such that the definition and the relationship are used during development, deployment and management of the distributed-computing system.

39. (Original) The method of claim 38 wherein the definition includes a resource definition, a system definition and an endpoint definition.

40. (Original) The method of claim 38 wherein the relationship includes a containment relationship, a delegation relationship, a communication relationship, a hosting relationship and a reference relationship.